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ASHES OF DEATH PART II

CONTINUATION OF THE OBSERVATION REPORT ON THE
MASTER OF THE CHERNOBYL NUCLEAR POWER PLANT AS
PUBLISHED IN THE JULY ISSUE OF JCAN

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Analysis and Interpretation

a person whose research is related to information and the genetic effects of radiation I will compare the data on Chernobyl, although not sufficient, and the data on Hiroshima, based upon my research in Hiroshima. This may provide me understanding of the extent of post-incident radiation effects caused by the Chernobyl power plant explosion.

The radiation components of the uranium bomb dropped on Hiroshima included 70 percent fission producing neutrons and 30 percent gamma radiation. The Plutonium ($^{239}_{94}\text{Pu}$) bomb dropped on Nagasaki included less fission producing neutrons than the Hiroshima bomb. The problems brought by these bombs resulted not only from the effects of radiation which resulted in ionization of genetic information but also from the damage and loss of life caused by the secondary effects of the explosion - the concussion and fires.

The total amount of fission producing neutrons released by the Hiroshima bomb was said to be 14,176.6 rads, and the gamma radiation 10,306.6 rads. 2,000 meters from the epicenter of the explosion the fission producing neutrons decreased

to 0.5 rads and the gamma-radiation count to 1.9 rads. Although remaining radiation was detected, the physical effects of radiation on those who entered Hiroshima City seven days after the explosion were hardly recognizable. Internal exposure through the food chain was not detected. In contrast, the total dose of radiation after the Chernobyl explosion was estimated at 12 to 15 rads, or 120 million Ci (Curie).

The radiation results from high densities of cesium and iodine. Other elements found included strontium and plutonium. Although the explosive power of both Hiroshima and Chernobyl was great, the actual Chernobyl explosion caused acute damage to only a limited number of people, for it was not in a densely populated area. The problem lies not so much in the actual nuclear power plant explosion but in its after-effects.

Through the food chain the cesium, which has a 30 year half-life, goes into the human body and continues to irradiate internal organ cells. The cesium poison is lesser than plutonium and strontium, however, recent reports state that cesium causes cancer and malformations. In an experiment conducted to determine teratogenic effects, a total of 680 rads were irradiated into pregnant rats for 9 to 18 days. The results showed 98 percent of the rats with embryo malformation. The malformation effects are greatest with fission producing neutrons, and decrease with tritiated water, cesium 137 and cobalt 60.

It is a widely known theory that acute malformation occurs when the amount of radiation exceeds the resistible threshold at a certain point in a pregnancy. If the exposure has not reached the threshold point, or if it doesn't occur at a critical point in the pregnancy, malformation does not occur.

The high ratio of random effects on cancer or genetic abnormality was created by low level radiation over a longer period of exposure.

Therefore the possibilities of cancer anagenetic effects from a nuclear power plant explosion are of primary concern. According to a warning issued by the International Committee for Radiation Protection (ICRP) in 1965, the maximum permissible dose was 0.5 rems per year for the total body.

The USSR Academy of Sciences set the safety level for lifetime exposure at 35 rems. However, this was changed to 15 rems and then changed once again to 7 rems. The experience in Hiroshima proved that the radiation level among atom bomb victims suffering from Leukemia was between 45 and 115 rems (or 20-40 rads), which is a higher level of radiation than the non-exposed radiation groups.

In the Chundiani village the radiation level of the earths surface was measured at 300 ci/km². This is equivalent to about 1 millirem/per hour: i.e. being in this location for 100 hours results in 100 millirems of exposure. This is the same amount of radiation as one chest X-Ray. (Dr. Frossard)

Supposedly a person could live in an area where the radiation level is calculated at one millirem per hour for 4 years: 1 millirem x 24 hours x 365 days x 4 years = 35,040 millirems. This level exceeds the safety standards set by the ICRP and the USSR Academy. However, this calculation is based on external exposure only. The radiation level will increase when internal exposure, caused by ingesting food and milk, are calculated. Therefore the White Russia (Byelorussia) administrative officials ordered those who lived in the critically affected areas to leave the land.

In most of the villages we visited we saw houses without any people. Yet surprisingly we saw people still alive. The officials explained that they could not leave their land. They did not want to move out even though it meant dying. This means that if people continue to reside there, or come and go from the area, the

possibility of cancer is very high.

Genetic research shows that the human populations experience genetic disease through natural mutation. This occurred on several occasions where the total radiation dose doubled the speed of the development of genetic disease, recorded at 10-100 rems or an average of 30 rems. If a person lives 3 years or months in an area detecting a high level of radiation at 300 Ci/km², they will be exposed to 30 rems, a double dose. According to this theory such means that in the next generation genetic epidemics will double. This is a very important serious warning.

In this pessimistic situation we must fight and work to interpret what genetic effects will be on young couples among the population who would reside in such an area and produce the next generation; and to then compare genetic effects on children in both controlled and safe areas.

When we visited the effected area by Japan we were surprised to see a young woman with a small child walking in the field. It was strange to think that these people will become statistics and the objects of research. Is it for medical reasons for the purpose of comparative examination theories that people are living in this dangerous place? When I saw the famous woman walking in this contaminated area prayed that they would move out from this dangerous area even though it meant the difficulty of moving to a new place.

Detrimental genetic effects can be controlled and kept to a minimum level by appropriate measures, and from our experience in Hiroshima we have found it possible to control the effects. Hiroshima significant genetic effects of atomic bomb victims have not been discovered. This was proved by health examinations conducted by Hiroshima City and Prefecture through chromosome analysis and mutant examinations by two dimensional electrophoresis. The pilot case studies and autopsies of aborted fetuses being conducted by the Research Institute for Nuclear Medicine and Biology at Hiroshima University will prove the effects on the next generation.

is difficult to make 100 percent guarantees in the field of nuclear medicine and biology. In order that the development of methods of diagnosis and physical examinations of abnormalities are found it is necessary to observe the situation over a long period of time.

According to Dr. B. L. Alexandrovich in Moscow, in 1951 there was a leak in cooling water contaminated with radiation from the Oural Nuclear Power Plant 50 km away. In this accident 28,000 people were exposed for 2-3 years. 1,000 people were exposed to over 52 rems; 66 people suffered from late effects, 37 people contracted leukemia, and 22 people had cancer of other organs. However, there was no record of the genetic effects nor any recognition of the problem. It is difficult to say that "no genetic effects were found" or that it produced "no genetic effects." Although different from experiments practiced with animals, these findings indicate possible controls for the discovery of genetic disease.

There are published articles dealing with the numerous cases of fetus malformation in Hiroshima. There are 40 cases noted where the head of the fetus is exposed in the mother's womb. The survey's conducted during the aftermath of the Hiroshima destruction lack important information related to early still births. In reality cases of malformation were less than estimated while cases of cancer were any. My particular concern was investigating the number of babies born with birth defects as a result of the Chernobyl accident. Unfortunately, it was difficult to get this information. I believe that the cases of birth defects may be small in number, for birth defects are not usually found with the accumulation of low dose levels of radiation.

Maitski Village

The Maitski village is located 5 km away from the Chudiani Village. Government officials found a cleared, non-polluted area and built 20-30 houses. I was surprised to find a radiation free area located just 5 km from the highly radiated one. If no precipitation of 'death ashes' can be detected in the area what

about changes in the consistency of the soil and underwater currents? Can a definite border exist between the highly contaminated area and the clean area? If it exists can it remain permanently?

When we got off the jeep we were riding, farmers came and gathered around us. As soon as the village officials joined us the expressions on the farmer's faces changed and they became very serious. Each one talked about their problems and appealed for their demands. The officials, who were middle aged men, explained the importance of the new national policies with the conviction of communist party members. But standing behind them, listening to the words that appeared to be coming from their backs (the true expression of his feeling) he seemed to be saying: "Whatever we are doing is not enough, but we continue to try."

Tasks

Prior to the trip to the USSR the Orthodox Church sent a list of medical needs. One-fourth of the medical equipment listed is produced in Japan including, the Electronic Ultra-Sonic Scanner by Hitachi and the Broncho-Fiberscope by Olympus. Are we not able to respond to their requests for medicine and medical equipment? This is a chance to prove that science is not always creating unhappiness.

Conclusion

Traveling in the USSR I noticed the difficulty of the present economic situation: in the hospitals we visited medicine and medical equipment were scarce. It was impressive to experience the warmth of the people in the Orthodox Church and to hear their passionate expectations for the future. Many women offered relevant prayers in worship services, smiling farmers welcomed us graciously, young women dressed in fashionable clothes could be seen on the streets, and mothers were working with pride. The wheat fields spread to the horizon, the forests were deep and green and the buildings told of the history and tradition of the region. I felt that the people who have lived in harmony in this country had the power to

restore themselves in the face of such a terrible disaster.

All the people whom we met such as the Bishop, priests, mayor and village heads, said that the problem does not only belong to state and country, but to all of humanity. This is the appeal which Hiroshima has been making to the world. Was it necessary to make such huge sacrifice in Hiroshima and Chernobyl in order to address the issues of radiation disaster?

CHERNOBYL THE AFTERMATH

BY SADAKO KURIHARA (A TRANSLATION; AYC)

*Away from the town
A white bird rests on its nest
On top of a dead and charred black tree.
The dark town of hell can be seen in the distance*

*In the ghostly dead zone,
Will the eggs at the top of the tree hatch?*

*Will the day come when the birds fly
toward the heavenly sky?*

*We too are white birds
Making a nest atop a dead and charred tree.*

*All life on earth has been exposed to
radiation made
by human hands.*

*Always frightened by the threat of a
blue flash
We make "homes" with father, mother and
child united together,
Concealing our fears day by day
With fragile happiness.*

*Even though the bird flies to the sky
It moves like a see-saw,
Radiation cloud in the sky
From nuclear experiments
From countless satellites
Orbiting and racing in space,
One day these will stop
And suddenly fall down upon our heads.*

*Where is the cause of this human made
radiation?*

*Unless we stop this criminal cause
Built under the name of national policy
Life cannot be lived
By the shallow happiness of today
The closed eyes must open,
Live life
Sing together
The song of life
Together!*

IN REMEMBRANCE HIROSHIMA and NAGASAKI

RIGHTS FOR FOREIGN ATOM BOMB SURVIVORS URGED

Memorial ceremonies were held in Hiroshi and Nagasaki this month commemorating the atomic bombings that devastated both cities 45 years ago.

At the Hiroshima ceremony 55,000 atom bomb survivors, families of victims, foreign guests and citizens joined in a minute silence at 8:15 a.m., the moment when the US dropped the atomic bomb which claimed the lives of 140,000 people. The ceremony took place at the Peace Memorial Park which is located near the hypocenter.

As is the tradition, members of victims' families presented a list to the city government during the ceremony, upon which were written the names of 10,175 bomb victims who died from after effects among those who had been missing but declared dead during the past year. The names were added to the cenotaph in front of the peace statue. The additional names raised the total number of atom bomb related deaths to 167,243.

NAGASAKI MAYOR SPEAKS OUT

About 25,000 people gathered in Nagasaki's Peace Park on August 9, as Mayor Hitoshi Motoshima urged the government to apologize and compensate the foreigners who still suffer as a result of the atomic bombings in both cities.

"During the 45 years since World War II the plight of non-Japanese atomic bomb survivors has been virtually ignored. Our moral responsibility toward these people

great indeed."

Motoshima focused on the plight of Koreans and Chinese saying they "were forced to come to Japan under the cruel system of colonial rule, who were subjected to inhuman treatment and who perished in the atomic bombings far from their homes. There are also many survivors in these countries who are now facing old age with the mental and physical torments caused by exposure to the bombings. It is imperative that we take immediate steps to offer apologies, to conduct investigations and to provide assistance for these people."

But Prime Minister Toshiki Kaifu, the first prime minister in four years to attend the Nagasaki ceremony said only that his government would explore ways to express its condolences to the victims and to more adequately support those survivors still suffering from bomb-related injuries.

His comments by Motoshima were the first of their kind ever expressed in the annual peace declarations.

Motoshima, a veteran legislator of the ruling Liberal Democratic Party became one of the first politicians to state publicly in Dec. 1988, that the late Emperor Showa bore a degree of responsibility for the war. As a result he became the target of threats, mainly from right wing fanatics.

In January of this year (see JCAN, Jan. 1987) the threats materialized when Motoshima was shot and seriously wounded in front of Nagasaki City Hall by a rightist who confessed that the attempted assassination was in retaliation for the remarks made by the Mayor about the late Emperor. The event drew into question freedom of speech, the basis of democracy in Japan.

His experience however, seems not to have deterred Motoshima, as he stated in a recent newspaper interview that Japanese must continue to reflect on their past war responsibility in order to gain respect in the world community.

To reflect on the past is to build the basis for a peaceful future. Let us inform the younger generation about the

horrors of war and about the vital importance of peace and human rights."

Motoshima said that since Japan signed the San Francisco Peace Treaty in 1952, and abandoned its right to demand compensation from the US for damages caused during World War II, the Japanese government must be fully responsible for supporting the victims.

But Prime Minister Toshiki Kaifu, the first prime minister in 14 years to attend the Nagasaki ceremony, said only that his government would explore ways to express its condolences to the victims and to more adequately support these survivors still suffering from bomb-related injuries.

During South Korean President Roh Tae Woo's visit to Tokyo in May, the Japanese government promised to pay 4 billion yen in compensation for South Korean victims of the Hiroshima and Nagasaki bombings.

It is estimated that 10,000 of the South Koreans forcibly brought to Japan during its 1910-1945 colonial rule of Korea were exposed to the two bombings.

Koreans attending a memorial service in Seoul for the South Korean victims demanded the immediate payment of the 4 billion promised by the Japanese. The service, sponsored by the Association of South Korean A-Bomb Victims, drew 300 people. (LA)

AUGUST 15 IN MEMORIAM

Against a background of rising tensions in the Middle-East, August 15, marking the end of World War II, was remembered throughout Japan.

Beginning in the morning at 7:00 a.m., a one-hour service was held at the park of the unknown soldier. About 200 Christians gathered in the afternoon for a meeting to express their opposition to the government's decision to support the Sokui no Rei (Imperial Enthronement Ceremony) and Daijосai (Divine Banquet Festival).

Explaining the beginnings of the Imperial ceremonies Rev. Masahiro Tomura countered the historical myth of the origin of the emperor, found in 7th century writings (Kojiki and Nihonshoki). Rev. Tomura said that we are now in the eye of a large typhoon that may continue for 10 years. After the typhoon passes we may be placed under the control of Japan's Tenno system. Thus, out of this fear the grassroots movement groups are standing in opposition to the imperial ceremonies related to the Tenno's enthronement and the nationalization of Yasukuni Shrine.

On May 29 of this year five large SDF helicopters airlifted a large throne from Kyoto to Tokyo (see JCAN #678). Such cooperation proves that the SDF serves the power of state authority. In 1973 members of the SDF received an audience with the emperor at the Imperial Palace.

Transportation of the enthronement seat by the SDF was carried out under the code name operation "murasaki" (purple), strategic headquarters of this operation were located at the Defense Ministry. Thus it became clear that the military power and the Imperial Enthronement Ceremony are inseparable. Without the backing of military power the Tenno is without his cloth. Preparations for the upcoming Daijosai ceremony are well-guarded by the powers of both the military and the police.

The relationship between the military and the Tenno system can be understood using the analogy of a computer. The software program of the Tenno system consists of various ceremonies centering around the emperor's enthronement, which is in turn protected by the hardware program - military power.

Instead of debating the issue of the enthronement ceremony in the Diet, the myth of the Imperial House and politics are combined to create a Tenno state, with Japan at the center and all other countries forming as branches to that state.

Tomura continued saying that August 15, 1945 was the day when Japan's myth died. Yet, the Allied Forces could not disassemble the Imperial House and it is

at this point that Japan's mythic democracy began. The government says that the enthronement ceremonies will be held according to the traditions of Japan, that is, the emperor is to proclaim himself a descendant of the imperial line of Amaterasu (god of heaven) and demand the loyalty of his people.

Contrary to the constitution of Japan which defines sovereign power as resting with the people, these ceremonies recognize the emperor's dominion over the state. In the mythical ceremony called Daijosai, the political leader sleeps with the sun goddess in order to achieve a better harvest. This ceremony has been repeatedly used to regain the power and authority of the Tenno from the 8th century on. In an effort to centralize the emperor's power the Meiji government used the ceremonies of Sokui no Rei and Daijosai to strengthen nationalism in modern Japan.

Following the meeting the participants marched through the streets to demonstrate their opposition to the government decision to support the enthronement ceremonies for the new emperor. (AYC)

LIBERATION AND THE CHURCH

THE ROLE OF THE CHURCH IN THE LIBERATION OF KOREANS JAPAN

An International Christian Symposium on "The Role of the Church in the Liberation of Koreans in Japan" was held at Kwansu Gakuin University from July 2-4. Representatives of Protestant Churches and the Catholic Justice and Peace Commission gathered to consult with members from the eight district Christian Coalitions on Alien Registration Law Issues (ARL) in Japan. International Solidarity participants from Korea and North America action groups also joined the discussions. In total 46 persons from coalitions and churches in Japan and abroad participated in the symposium called and coordinated by the National Liaison Council of the Christian Coalition on ARL Issues.

The Symposium evaluated the struggles of Koreans against the injuries suffered under and injustice of the ARL fingerprinting and passbook requirements and criminal prosecution resulting from failure to comply with these laws. It stated in a repentant spirit the failure of the Christian movements involvement, together with Korean and Japanese people, to gain fundamental revision of the ARL in the 1980's as part of the larger struggle for full liberation of the Korean people, Japanese society and the restoration of their ethnic dignity and equal social opportunities. It condemned both the breakdown of Japanese moral conscience and the process of justice as court appeals in ARL cases were denied a hearing due to the unilateral amnesty implemented in February 1989. The amnesty was announced following the death of Emperor Hirohito.

The conference criticized the falseness and deception of Japanese and Korean government leaders in their exchange of apologies and conciliatory phrases in the state visit of ROK President Roh Tae Woo in May, 1990, and in ongoing bilateral government negotiations. Specifically the criticisms were directed at the repentant and hard-hearted attitude of Japanese authorities responsible for the educational, judicial, public service, state security, and foreign residence policies, and on the fact that the principals involved (i.e. integrated permanent residents - "foreigners" - born in Japan as descendants of Japan's colonial conscriptees) are denied a just and determinative role in the policy making process. These were described as sins against human lives and conscience, and the social and cultural rights and relationships of people in Japan.

The symposium took note of the seriousness of the present situation faced by Koreans and other foreign residents, as over 50,000 Koreans in Japan will renew their registration during the summer months. They also took note of: the burden placed every year on the 5,000, 16 year-old Koreans who are forced to confront this problem, and the 104 first-time refusers among them; the adamant enforcement of the tagging with I.D. cards of foreign residents in ways which incite Japanese racial prejudices and social

discrimination; and the bilateral government negotiations serving political and state interests toward unilateral solutions by January, 1991 without the open, democratic participation by Korean and Japanese people.

Mission action priorities for the 1990's were outlined for implementation in Japan and the region, and for international human rights and social justice solidarity appeals. Actions included:

- Political efforts to gain the radical revision of the ARL, ridding it of its racist, discriminatory elements.
- Limitation of the excessive discretionary powers exercised by the authorities over the lives of foreign residents.
- Conscientious efforts to gain an apology through a process of public debate for colonial and neo-colonial injustices, coupled with legislative guarantees redressing the legal status and basic human dignity of Koreans in Japan, and restoration of the social and cultural rights of Koreans and other historically rooted non-Japanese members of society.
- Extended efforts to build up the Christian coalition engagement in ARL issues for the realization of freedom for all people in Japan, actively cooperating with NGO's to hold the Japanese people and government accountable to United Nations human rights standards.

The Symposium closed its intense sessions by confirming the confessional grounds for the original and continuing engagement in ARL and "1991 issues" of legal status and social justice. The declaration approved by the symposium advocated that action toward Japanese and Korean state authorities be taken regarding these policies and that efforts be encouraged to effect change by citizens at the local and international level and through the civil service.

The declaration committed the

participants, and called related churches, coalitions and mission agencies to stand with those who according to their conscience refuse to be fingerprinted and those who are opposed to the oppressive registration process in its entirety. It set the next year of mass re-registration, 1995, as the time when Koreans and Japanese will have the opportunity to fully claim their liberation and reconciliation rights; and a time to celebrate the victories won through the struggles along the way.

KADENA AIR BASE ENCLOSED

HUMAN CHAIN AROUND KADENA AIR BASE

According to reports from local newspapers, on Aug. 5, 26,000 people formed a "human chain" encircling the US Air Force base at Kadena in central Okinawa to demonstrate against US military presence in Okinawa and to call for a return of the base site to Japan. The protest came on the eve of the 45th anniversary of the atomic bombing of Hiroshima. It was the second human chain demonstration, the first was held in 1987.

The protestors involved in this mass appeal for peace included 400 residents of Miyako Island and other outlying areas of Okinawa, as well as 700 mainland Japanese.

By linking hands around the 17.4 kilometer circumference, successful human chains were completed three times. After the chain was completed, supporters released doves and sent up balloons as a symbol of peace. Red, yellow and green strips of cloth worn by the participants were alternately tied to the perimeter of the base fence after each chain was formed to remind the US of their presence.

According to reports the "human chain" protest has inspired similar groups in Japan. One group plans to encircle the US Air Force base at Yokota, on the outskirts of Tokyo, on October 21, 1990.

The Christian group was assigned a 100

meter section along the north perimeter of the base where they joined in forming the



chain. According to the Okinawa Heiw (Peace) Center people of all ages hurried from their morning worship services throughout Okinawa to reach the base area in time.

Planning Committee Secretary Kinjo Koji of the Okinawa Peace Center, commenting before the event on Christian participation, said that "For Christians in Okinawa who have received the gift of life, it is an act of confession of faith. With Okinawa's history of great loss of life in the war, and the reality of military bases today, as Christians who seek peace we must participate!"

And so they did. Although a maximum of 150 Christians were expected to participate, all estimates were exceeded as nearly 300 gathered to form the human chain; singing songs, offering prayer and chanting: "We love Okinawa! We hate the US bases!"

(INFORMATION GATHERED FROM THE RYUKYU SHIMPO, MAINICHI SHINBUN AND OKINAWA HEIWA CENTER)

We of the human family are being sucked up into the vortex of a huge cyclone of our own making. The year 2000 will see us sitting on the fence teetering between extinction and proud possibility. We can see some of the foreboding landscape of the future, just by looking today at the way in which hate and animosity have gained ascendancy. The world is engaged in wars of all kinds and we continue to allow the rich to remain perniciously rich at the expense of the many, even in the richest and most powerful nation of the world. We need a new paradigm if we are to make it successfully into the twenty-first century yet alive (Editor)

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